Protocol Changes for Statewide Treatment Protocols, Version 2016.01

Effective December 15, 2016

#	Protocol or Appendix	Change	Reason
1.	1.0 Routine Patient Care Assessment and Treatment Priorities	In a critical patient with no other vascular access, if trained to do so and with concurrent on-line medical control order, Paramedics may access a Peripherally Inserted Central Catheter (PICC) line (not any other central access) in order to administer medications.	Aligning protocols with the 2003 Advisory.
2.	1.0 Routine care Medication and Storage	Infusion pumps must meet the following criteria: · FDA-approved, and not excluded from transport use · Contain a drug library with adult and pediatric dosing · Minimum of 1 channel · Use latex-free and needle-free tubing sets · Capable of operating with battery or AC-adapter power sources.	Minimum requirement for an infusion pump. -Norepinephrine must be administered via a pump due to small dosing requirements. -Until pumps are available continue to use Dopamine.
3.	2.2A-Allergic Reaction/Anaphylaxis-Adult	Added language to A section: If approved, Epinephrine 1:1,000 0.3 mg IM-ONLY. Must be administered in accordance with criteria listed in A1Adult Medication Reference.	Paramedics and Advanced EMTs may administer Epinephrine 1:1000 IM if approved by the Service's Affiliate Hospital Medical Director and trained by the service.
4.	2.2A-Allergic Reaction /Anaphylaxis-Adult	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.
5.	2.2A-Allergic Reaction/Anaphylaxis-Adult	In Medical Control section Epinephrine infusion-dose changed from 1-10 mcg/min to 2-10mcg/min.	Consistent dosing for Epinephrine infusions throughout the protocol.
6.	2.2P-Allergic Reaction/Anaphylaxis-Pediatric	Added language to A section: If approved and the patient is over 6 months, administer Epinephrine 1:1,000 0.15 mg IM-ONLY (for pediatric patient with a body weight less than 25 kg). If body weight is over 25 kg, use Epinephrine 1:1,000 0.3mg. Must be administered in accordance with criteria listed in A1 Adult Medication Reference Contact Medical Control if second epinephrine dose required after 5 minutes.	Paramedics and Advanced EMTs may administer Epinephrine 1:1000 IM if approved by the Service's Affiliate Hospital Medical Director and trained by the service.
7.	2.3A Altered Mental/Neuro/ Diabetic Emergencies-Adult	Dextrose dose changed to read: Dextrose 12.5 g IV/IO. Recheck glucose 5 minutes after administration of Dextrose. May repeat Dextrose up to 25 g IV/IO if glucose level is <70mg/dL with continued altered mental status.	Encourage the use of D10 in all care. D50 is hypertonic can irritate tissues.
8.	2.4 Behavioral Emergencies-Adult and Pediatric	Added to Paramedic Standing order: Ketamine 4mg/kg IM only, to a maximum dose of 400mg IM only, as a single dose.	Ketamine is beneficial in treating the severely agitated patient. 39% of patients receiving Ketamine required intubation.
9	2.6P-Bronchospasm/Respiratory Distress-Pediatric	Basic EMTs may administer Epinephrine for severe distress: If patient is over 6 months old, administer pediatric dose Epinephrine 1:1000 0.15 mg IM only (for pediatric patient with a body weight less than 25 kg) by auto-injector. If body weight is over 25 kg, administer Epinephrine 1:1,000 0.3 mg IM only by auto-Injector. A second injection in 5 minutes may be necessary. OR (continues next entry)	EMT-Basics can give Epinephrine for severe distress in Bronchospasm.

Protocol Changes for Statewide Treatment Protocols, Version 2016.01

Effective December 15, 2016

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10.	2.6P-Bronchospasm/Respiratory Distress-Pediatric	If approved, administer Epinephrine 1:1,000 0.15 mg IM-ONLY (for pediatric patient with a body weight less than 25 kg). If body weight is over 25 kg, use Epinephrine 1:1,000 0.3mg. IM- ONLY. Must be administered in accordance with criteria listed in A1 Adult Medication Reference. Criteria listed in protocol.	EMT-Basics may administer Epinephrine 1:1000 IM if approved by the Service's Affiliate Hospital Medical Director and trained by the service.
11.	2.10 Obstetrical Emergencies	Language added in a clinical box-Special Considerations in Cardiac Arrest (with additional resources) -If the fundus height is at or above the level of the umbilicus-Manually displace the gravid uterus to the left to enhance venous return.	AHA recommendation.
12.	2.14 Poisoning/Substance Abuse/Overdose/Toxicology-Adult and Pediatric	For First Responders/EMT-Basics and EMT-Intermediates Naloxone dose range is now 2mg to 4 mg.	Stronger dosing for more potent opioids.
13.	2.14 Poisoning/Substance Abuse/Overdose/Toxicology-Adult and Pediatric	Advanced EMTs Naloxone dose range is now 0.4 mg – 4 mg IV/IO/IM/IV	Stronger dosing for more potent opioids.
14.	2.14 Poisoning/Substance Abuse/Overdose/Toxicology-Adult and Pediatric	Hydroxocobalamin 5 gm IV/IO over 15 minutes in an adult. In a pediatric patient 70 mg/kg (to maximum 5 gm) IV/IO over 15 minutes.	Clarifying dosing adding pediatric dose to this protocol.
15.	2.15P Seizures – Pediatric	Midazolam 0.05mg/kg IV/IO/IM to a maximum single dose of 4mg. **OR** Midazolam 0.2mg/kg IN to a maximum dose of 10 mg.	Updated dosing.
16.	2.16A Shock-Adult	In the Medical Control section: Norepinephrine and Dopamine doses added back into Distributive shock the Medical Control section.	Technical fix.
17.	2.16A Shock-Adult	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.
18.	2.16A Shock-Adult	In the Medical Control section for Cardiogenic, Distributive, Hypovolemic and Obstructive shock: Epinephrine Infusion – 2-10 mcg/min IV/IO by pump added. For reference dosing preparation reminder under Cardiogenic shock only:(for example: mix 1 mg of 1:1000 Epinephrine in 250 ml Normal Saline). (15 micro drops/minute = 1 mcg / min.).	Additional vasoactive medication option. Must be infused using a medication pump.
19.	2.16P Shock-Pediatric	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.
20.	2.17 Sepsis NEW Protocol	-Identification criteria of possible Sepsis -Sepsis ALERT -ALS interventions.	Improve patient outcomes.
21.	2.18 Stroke Protocol	Renumbered to keep Sepsis Protocol (above) with the Shock Protocols.	Keeping the Shock protocols together for easier referencing.
22.	3.3A Bradycardia-Adult	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.

Protocol Changes for Statewide Treatment Protocols, Version 2016.01

Effective December 15, 2016

#	Protocol or Appendix	Change	Reason
23.	3.3A Bradycardia-Adult	Epinephrine infusion dose changed to 2-10 mcg/min IV/IO in MC section.	Provides consistent Epinephrine infusion dosing throughout the protocols.
24.	3.4A-Cardiac Arrest (ADULT)-Asystole/Pulseless Electrical Activity	in the EMT section-this line was added: If suspected opioid overdose administer Naloxone per protocol.	AHA recommendation.
25.	3.4P-Cardiac Arrest (PEDIATRIC)-Asystole/Pulseless Electrical Activity	in the EMT/Intermediate/Advanced EMT section-this line was added: If suspected opioid overdose administer Naloxone per protocol.	AHA recommendation.
26.	3.5A Cardiac Arrest-(ADULT)-Ventricular Fibrillation/Pulseless Ventricular Tachycardia	in the EMT/Intermediate section-this line was added: If suspected opioid overdose administer Naloxone per protocol.	AHA recommendation.
27.	3.5A Cardiac Arrest-(ADULT) Ventricular Fibrillation/Pulseless Ventricular Tachycardia	Moved Magnesium Sulfate from the Medical Control section to the Paramedic Standing orders section **Magnesium Sulfate** 1 – 2 grams IV/IO over 5 minutes, in torsades de pointes or suspected hypomagnesemic state or refractory ventricular fibrillation/ventricular tachycardia.	Within the scope of practice for the Paramedic.
28.	3.5P Cardiac Arrest-(PEDIATRIC) Ventricular Fibrillation/Pulseless Ventricular Tachycardia	in the EMT/Intermediate/Advanced EMT section-this line was added: If suspected opioid overdose administer Naloxone per protocol.	AHA recommendation.
29	3.6 Congestive Heart Failure (Pulmonary Edema)	In Paramedic section language removed from 3rd bullet "and if nebulizer therapy can be continued with the CPAP device".	Beta agonists not helpful and potentially harmful in CHF.
30.	3.6 Congestive Heart Failure (Pulmonary Edema)	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.
31.	3.7 Induced Hypothermia	Removed chilled saline from the I/A section.	2015 AHA recommendation.
32.	3.7 Induced Hypothermia	Removed temperature reference 34 degrees C or greater in P section.	2015 AHA recommendation.
33.	3.7 Induced Therapeutic Hypothermia	Removed IN route from Morphine added the sc route.	IN route is not as effective for Morphine delivery.
34.	3.8 Post Resuscitative Care/ROSC - Adult	Epinephrine infusion dose changed to 2-10 mcg/min IV/IO in MC section.	Provides consistent Epinephrine infusion dosing throughout the protocols.
35.	3.8 Post Resuscitative Care/ROSC - Adult	Amiodarone bolus defined. Language added that reads: Amiodarone bolus (150mg in 10mL normal saline slow over 8-10 minutes), followed by 1 mg/min IV/IO drip.	Clarifying dosing.
36.	4.3 Eye Emergencies Adult & Pediatric	The protective cup is replaced with an eye shield. Changes in the Puncture Wound statement and # 2 in the Securing Impaled Object.	Improving patient safety.
37.	4.3 Eye Emergencies Adult & Pediatric	Moved Tetracaine from the Medical Control section to the Paramedic Standing orders section. "Topical anesthetic: Tetracaine 1-2 eye drops as needed, if available".	Within the scope of practice for the Paramedic.
38.	4.3 Eye Emergencies Adult & Pediatric	Moved the Morgan lens from the Medical Control section to the Paramedic Standing orders section. "Use of Morgan lens for eye irrigation".	Within the scope of practice for the Paramedic.

Protocol Changes for Statewide Treatment Protocols, Version 2016.01

Effective December 15, 2016

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39.	4.6 Musculoskeletal Injuries-Adult and Pediatric	This note (in routine care) was added to this protocol: **Note:** If no palpable, distal pulse is present following suspected extremity fracture, position injured extremity in correct anatomic position, and apply gentle traction along the axis of the extremity distal to the injury until the distal pulse is palpable and immobilize in place. Note: This does not apply to dislocations.	Reminder note: when the distal pulse is absent and there is no dislocation.
40.	4.8 Spinal Column/Cord Injuries Adult & Pediatric	Item 10 to read: utilize a SLIDE BOARD "if available" at the destination...	Transfer method following spinal immobilization.
41.	4.9 Thoracic Trauma Adult & Pediatric	Removed section in parenthesis from the Paramedic Standing Orders-line will read: Needle chest decompression if indicated. Removed (2nd intercostal space, midclavicular line with at least 3.25 inch, 14g angiocath).	The optimal place to do a needle decompression depends on the patient size and injury.
42.	5.1P Upper Airway Obstruction-Pediatric	This language was added to the Paramedic section: If unable to clear airway obstruction, unable to intubate as needed or unable to perform positive pressure ventilations, perform a needle cricothyrotomy, if permitted under 6.3 Needle Cricothyrotomy.	Clarifying language, this language is in 5.1A-Upper Airway Obstruction-Adult Protocol, should be in this Pediatric protocol.
43.	6.0 Medical Director Options	Urban Search and Rescue (USAR) added to Medical Director Options Table of Contents.	formatting
44.	6.4 Selective Spinal Assessment	In Medical Control section removed "by pump" from Norepinephrine dosing.	It is required, noted in Protocol 1.0 Routine Patient Care.
45.	6. 5 Medical Director options Urban Search and Rescue Protocols-New Protocol	The Urban Search and Rescue (USAR) Medical Specialist is a paramedic level or higher medical provider capable of delivering immediate medical response and support to urban search and rescue operations and based on the FEMA National USAR Task Force medical team model.	Paramedics operating under these protocols *MUST* have completed an approved FEMA (or equivalent) medical team training program, be a designated member of a recognized local, county or state USAR team and have the authority to function in this capacity from their agency's Affiliate Hospital Medical Director.
46.	7.6 Sedation and Analgesia for Electrical Therapy Adult & Pediatric	Renamed title –added the term "Analgesia".	Accurate description for sedation and pain relief.
47.	7.9 Process for Changes to the Statewide Treatment Protocols	Paragraph 6 removed-it read: Protocol changes to be implemented by the department shall be issued no later than February 1 of each year, with implementation no later than March 15 by EMS Service's Affiliate Hospitals unless the department specifies a longer window of issue or implementation.	Technical fix.
48.	A1 Adult Med Reference-Cyanide Antidote Kit	Corrected spelling-Nitrite	Technical fix.
49.	A1 Adult Med Reference-Dextrose	Updated to reflect changes to protocol 2.3.	Updating dose noted in Protocol 2.3.
50.	A1 Adult Med Reference-Epinephrine	Updated to reflect changes in protocols 2.2A, and 2.6A. IM kit criteria listed.	Reference consistent with the protocol.

#	Protocol or Appendix	Change	Reason
51.	A1 Adult Med Reference-Epinephrine 1:1000 (by infusion only)	Infusion -IV dose updated for Allergic Reaction to 2-10 mcg/min and the list of diagnoses alphabetized and Information on Shock added. Now reads: Allergic Reaction-2-10 mcg/min IV/IO infusion (maintenance) Bradycardia-2-10 mcg/min IV/IO infusion Post-Resuscitation-2-10 mcg/min IV/IO infusion Shock-Adult 2-10 mcg/min IV/IO infusion-by pump.	Epinephrine infusion dosing is consistent throughout the Protocols.
52.	A1 Adult Med Reference-Ketamine	Added to reflect dosing addition to 2.4 Behavioral Protocol.	Added to reflect addition to 2.4 Behavioral Protocol.
53.	A1 Adult Med Reference-Norepinephrine	Added this maximum dosing language to dosing line "-generally to a maximum dose of 30 mcg/min." Now reads: Hypotension 0.1mcg/kg/min IV/IO titrate to goal SBP of 90mmHg-generally to a maximum dose of 30 mcg/min.	Added maximum dosing level.
54.	A2 Pediatric Color Coded Medication reference-Cyanokit	Table reference added. Average weight dosing also added to Hydroxocobalamin references.	Ensure proper dosing.
55.	A2 Pediatric Color Coded Medication reference-Epinephrine	Updated to reflect changes in protocols 2.2P.	Reference consistent with the protocol.
56.	A2 Pediatric Color Coded Medication reference-Hydroxocobalamin	average weight doses added based on Cyanokit table.	Ensure proper dosing.
57.	IFT- under Minimum Standards IFT-2nd paragraph under Minimum staffing	Language added: EMTs providing patient care "that exceeds their regular scope of practice under the Protocols" during Interfacility Transfers must meet the following requirements as outlined in 105 CMR 170.000 et al:	Clarifying language.
58.	IFT- under Minimum Standards IFT-3rd paragraph	The line: Guidelines for approved ALS Interfacility Transfer training programs have been issued separately by the Department has been removed.	Clarifying language.
59.	IFT under Minimum Standards 4a Routine, Scheduled transport	Added language to read: IVs (if disconnected from fluid and on a saline lock during transport).	Safety measure. IVs must be disconnected and a saline lock must be in place during ambulance transport.

Protocol Changes for Statewide Treatment Protocols, Version 2016.01

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60.	IFT under Patient ALS Transfer Procedures- added as the 6th paragraph	Under 105 CMR 170.360(A), ambulance Service's Affiliate Hospitals may not transport a patient between health care facilities who is receiving medical treatment beyond the training and certification capabilities of the EMTs staffing the ambulance, unless an additional health care professional with that capability accompanies the patient. Further, 105 CMR 170.310(B) authorizes hospital staff, such as an RN or RT or MD or DO, to go on the ambulance and render care to the patient during transport. Such sending facility additional health care professional would be responsible for primary patient care of that patient during transport, and would receive any additional orders from the sending physician, since the care of the patient exceeded what the ambulance and its crew could provide.	Clarifying language: Hospital staff receives orders from the sending hospital physician.
61.	IFT under Section B-B2-Adult Medical Patients-4th bullet	Patients being transferred due to an issue with a ventricular assist device (VAD) Language added:" that may require active monitoring or management".	Clarifying if the VAD is functioning properly but the patient is experiencing medical/surgical issues, Critical Care Transport (CCT) is not required.
62.	A4-Scope of Practice document Airway/Respiratory Management	Added a box for CPAP assist for EMT with assist to the Paramedic.	Technical fix.
63.	A4-Scope of Practice document Airway/Respiratory Management	Added an X for Tracheostomy Care to the EMT, Intermediate and Advanced levels.	Technical fix.
64.	A4-Scope of Practice document Routes of Access/Medication Administration	Added an X for IV for the Intermediate.	Technical fix.
65.	A5-Point of Entry (POE) Plans	Patient Specific Condition, Trauma, STEMI and Stroke POE	Added as reference material only – Authority for POE is pursuant to EMS System regulations.